

XXXVIII.—*A Collection of Butterflies from the Fiji Islands.*
By ARTHUR G. BUTLER, F.L.S., F.Z.S., &c.

THE collection of which the present is an account is one of unusual interest, from the great care with which it has been made, a record of the locality and date of capture being given upon each envelope. Of some of the species no examples have previously (so far as I know) reached this country, whilst of others we have only known single examples or a pair.

This series was collected by C. M. Woodford, Esq., and presented to the British Museum.

Nymphalidæ.

EUPLOEINÆ.

Much discussion has arisen respecting Mr. Moore's revision of this group of butterflies, and there is no doubt that by the introduction into this otherwise most laboriously constructed paper, of unquestionably incomplete "tables of the genera," its author has laid himself open to criticism. Whether the groups regarded by Mr. Moore as genera are allowed to retain that rank or are regarded as sections, there can be no doubt that many of them are sufficiently distinct to exhibit series of parallel species, such as are recognized as existing between the universally admitted New-World genera *Ceratinia*, *Mechanitis*, *Melinæa*, and *Heliconius*. So far as I am personally concerned, I think a generic boundary separating such parallel series (even though it be only indicated by a slight constant modification in the wing-structure) is profitable to the student, in that it calls his attention to the existence of parallelism in the subfamily; and I think it convenient to admit the greater part of Moore's genera (in the present paper I admit all with which I have to deal), though in the case of *Andasena* and *Nipara*, I believe the latter name will not stand.

1. *Tirumala moderata.*

Danais moderata, Butler, P. Z. S. 1874, p. 275.

Tairuni, September 1882.

2. *Andasena eleutho.*

Danais eleutho, Quoy & Gaimard in Freyc. Voy. p. 554, pl. lxxxiii. fig. 2 (1815).

Mango, 20th July, 1882.

3. *Nipara intermedia*.

Nipara intermedia, Moore, P. Z. S. 1883, p. 258. n. 3.

♂ ♀. Mango, 13th and 18th July.

4. *Salpinx Græffiana*.

Euplœa Græffiana, Herrich-Schäffer, Stett. ent. Zeit. 1869, p. 70, pl. ii. fig. 5.

♀. Mango, 18th July, 1882.

5. *Vadebra mangoensis*, n. sp.

Dark piceous, primaries becoming almost black towards the end and around the end of the cell, but with the veins paler; a diffused submarginal paler band curving inwards to costa at apex, and bearing eight whity-brown spots, the four first of which form an oblique subapical series and are very small and almost white; the remainder increasing gradually in size to the seventh, the eighth considerably larger than the latter; external border smoky dark grey-brown: secondaries paler than the primaries, with an olivaceous tinge, the submarginal band wider and much paler than that of the primaries, bearing seven white spots near its inner edge, two of which are subapical and very sharply defined; four minute submarginal dots: body blackish. Wings below paler than above, olivaceous brown: primaries with the costal area pale, forming a continuous belt with the submarginal one; all the spots in the submarginal belt small, especially the fourth and fifth; a blue point near the extremity of the discoidal cell, and three forming an obtuse angle above the three median branches; an elongated white interno-median longitudinal streak; internal border dull white: secondaries with the submarginal belt very pale, especially towards the anal angle, so that only the first two of the white spots along its inner border are well defined; the four submarginal spots decidedly larger and more conspicuous than above; costal border, excepting at base, clear whity-brown; a blue spot in the cell and an angulated series of seven blue spots round the outer half of the cell between the veins, the last of these being distinctly linear; pectus and base of secondaries black spotted with white; venter dark brown, with a few central white points. Expanse of wings 52 millim.

Mango, 15th July, 1882.

Nearest to *V. sepulchralis* of Java and *V. Zinckenii* of Amboina; but readily distinguished from both by the discal series of spots on both surfaces and other less important characters.

6. *Calliplœa Forsteri*.

Euplœa Forsteri, Felder, Reise der Nov. Lep. ii. p. 322 (1867).

Mango, 15th July.

NYMPHALINÆ.

7. *Hypolimnas formosa*.

Diadema formosa, Herrich-Schäffer, Aussereur. Schmett, fig. 119 (1869).

Mango, 16th July.

8. *Hypolimnas lutescens*.

Diadema lutescens, Butler, P. Z. S. 1874, p. 283. n. 49, pl. xlv. fig. 3.

♀. Mango, 16th July.

A dark form of this species was taken at the same time, which is interesting, inasmuch as it approaches *H. antilope* of Amboina. It is probably a female with male colouring.

9. *Hypolimnas pallescens*.

Diadema pallescens, Butler, P. Z. S. 1874, p. 282. n. 47.

Nine females. Mango, 18th July.

The series collected by Mr. Woodford shows a series of gradations, commencing with the extremely pale form figured in Brenchley's 'Voyage,' through a series of gradually darkening forms near to *H. antigone* of Batavia, to a smoky brown form in which the markings, excepting the discal series of white spots on the primaries, are much obscured; the general character of *H. pallescens*, apart from the ground-tint, is nevertheless retained throughout the series.

10. *Hypolimnas porphyria*?

Papilio porphyria, Cramer, Pap. Exot. iii. pl. cclv. E, F (1782).

♀. Tairuni, 16th September.

Cramer's figure is taken from an Amboinese example in which the submarginal series of spots appear to be decidedly whiter than in the Fijian form; this, however, may be an error in colouring.

11. *Hypolimnas Moseleyi*.

Hypolimnas Moseleyi, Butler, Ann. & Mag. Nat. Hist. ser. 5, vol. xi. p. 414. n. 43 (1883).

♀. Mango, 18th July.

It is a singular thing that the only male *Hypolimnas* in this collection is the specimen of *H. formosa*.

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12. *Junonia villida*.

Papilio villida, Fabricius, Mant. Ins. ii. p. 35. n. 366 (1787).

Mango, 20th July.

ACRÆINÆ.

13. *Acræa andromacha*.

Papilio andromacha, Fabricius, Syst. Ent. p. 466. n. 102 (1775).

18th and 20th July, 1882.

Lycænidaë.

14. *Catochrysops patala*.

Lycæna patala, Kollar, in Hügel's Kashmir, iv. 2, p. 419 (1848).

♂. Mango, 13th July, 1882.

15. *Jamides Woodfordii*, sp. nov.

♂. Brilliant glossy ultramarine-blue, with narrow external black border to the primaries about two thirds the width of that in *J. candrena* ($1\frac{1}{2}$ millim. in the middle, slightly wider at apex); costal margin very narrowly blackish: secondaries with a more or less well-developed submarginal series of oval black spots, bounded externally by a bluish-white line, those nearest to anal angle also with an internal bluish-white border; an interrupted black marginal line; abdominal border smoky grey, whitish at base: body blackish, with bluish and grey hairs on the thorax. Under surface rich golden brown, with the usual slender white lines; ocelli towards and at anal angle with reddish-orange internal lunate borders. Expanse of wings 29 millim.

♀. Paler than the male on both surfaces, the primaries above with costal and external blackish borders almost as wide as in *J. plato* ♀: secondaries with a complete marginal series of blind black ocelli, with pale blue irides and black zones. Expanse of wings 31 millim.

♂ ♀. Mango, 13th July.

We also have a male in the Museum from Vanua Levu.

16. *Jamides campanulata*, sp. nov.

Smaller than the preceding species, deep glossy sky-blue with lilac reflections; similar in pattern to the preceding species, but the submarginal line bounding the submarginal spots of the male and forming the irides of the ocelli of the

female pure white. Under surface distinctly paler than in *J. Woodfordii*, of a stone-greyish colour; the lunules bounding the ocelli of secondaries golden-orange. Expanse of wings, ♂ 25, ♀ 27 millim.

♂ ♀. Mango, 13th July.

We also possess a male taken at Vanua Levu on the 3rd July, and a second from Viti Levu received in 1874 as a supposed variety of the far more beautiful *J. candrena*.

17. *Jamides lobelia*, sp. n.

♂. The smallest species of the group: bright *Morpho*-blue; primaries with a rather narrow black external border (just over 1 millim. in the middle, slightly wider at costa): secondaries with black submarginal spots much as in *J. Woodfordii*, but less oval. Under surface grey, the white lines indistinct, the ocelli of secondaries with pale stramineous internal lunate border. Expanse of wings 16 millim.

♂. Mango, 13th July*.

18. *Lycena mangoensis*, sp. n.

♂. Violet-blue, rather dull; with narrow dull dust-grey external border, slightly wider at costa than at external angle;

* Before passing on to another genus I think it best to name two other forms which have for some time past stood in the Museum collection as supposed varieties of *J. candrena*, but which I now am sure are distinct.

Jamides pulcherrima, sp. n.

♂. Colour of *J. candrena*; intense glistening ultramarine-blue; primaries with the costal margin and a rather broad external border black, the width of this border gradually increased from $1\frac{1}{2}$ millim. at external angle to 6 millim. on the costal margin, so that it is decidedly wider than in *J. candrena*, but narrower than in *J. plato*: secondaries also with a regular black border nearly 2 millim. in width, enclosing a series of blue crescents; abdominal border brown. Wings below stone-grey; white lines inconspicuous: ocelli of secondaries rather small, the larger one over the tail oval, with a greenish silver spangle at each end and, like the smaller one, with a narrow reddish-orange half-zone. Expanse of wings 26 millim.

Tanna, New Hebrides, 23rd April.

Jamides morphoides, sp. n.

♂. Brilliant *Morpho*-blue, with black borders as in the preceding species, that of secondaries enclosing three oval spots outlined in lilac. Under surface silver-grey, with a very faint golden shot, only visible in certain lights; the white lines on the primaries very indistinct; ocelli on the secondaries with ochreous inner borders. Expanse of wings 30 millim.

Montagu Island, New Hebrides.

Nearest to *J. Goodenovi*, though entirely differing in the colour of both surfaces.

basal half of costa of primaries and abdominal border of secondaries chalky white: body bluish. Under surface greyish white; a narrow discocellular stone-grey stria with white edges at the end of each discoidal cell; a marginal series of grey-centred and grey-zoned white ocelli: primaries with a series of white-edged grey lunate spots near to outer margin: secondaries with two spots near the base and an irregularly angulated series of white-edged stone-grey spots beyond the middle. Expanse of wings 25-27 millim.

Mango, 20th July, 1882.

Not very nearly allied to any thing known to me.

Papilionidæ.

PIERINÆ.

19. *Belenois teutonia*?

Papilio teutonia, Fabricius, Syst. Ent. p. 474 (1775).

Mango, 20th July.

Not perfectly typical; but only one example was obtained.

20. *Belenois clarissa*.

Belenois clarissa, Butler, Ann. & Mag. Nat. Hist. ser. 5, vol. xii. p. 590 (1873).

Mango, 13th July.

Two males were obtained.

PAPILIONINÆ.

21. *Papilio Schmeltzi*.

Papilio Schmeltzi, Herrich-Schäffer, Stett. ent. Zeit. 1869, pl. i. fig. 1.

Levuka, 29th June; Mango, 15th July.

No species of Hesperidæ were obtained.

XXXIX.—A Contribution to the Knowledge of the Marine Fauna of Kurrachee. By J. A. MURRAY.

THE marine fauna of Kurrachee and the Sind coast generally has not hitherto received quite the attention it deserves, and it is evident, from the results of collections made during the last five years, that there are many undescribed forms, not